6. (Amended) Vaccine in accordance with Claim 1 which also contains at least one immunising section of the gene coding for an internal protein of the lentivirus.

A1 Cont'd

7. (Amended) Vaccine in accordance with Claim 1 wherein the immunising polynucleotide sequence contains the coding sequence (SEQ ID NO. 4) of the plasmid sequence given under SEQ ID NO 1 or a sequence which is 85% identical with the coding sequence (SEQ ID NO 4) of the plasmid sequence given under SEQ ID NO 1, or a coding sequence which, without degeneration of the genetic code, is at least 85% identical with the coding sequence of the sequence given under SEQ ID NO 1.

8. (Amended) Vaccine in accordance with Claim 1 containing an accessory polynucleotide sequence which contains the sequences coding for IL-12 under the control of one or more eukaryotic promoters which are active in the corresponding animal.

9. (Amended) Vaccine in accordance with Claim 1 containing an accessory polynucleotide sequence which contains the sequence coding for IL-16 under the control of a eukaryotic promoter which is active in the corresponding animal.

10. (Amended) Vaccine in accordance with Claim 1 containing an accessory polynucleotide sequence which contains the sequence coding for IL-12 and IL-16 under the control of one or more eukaryotic promoters which are active in the corresponding animal.

11. (Amended) Vaccine in accordance with Claim 8 containing an accessory polynucleotide sequence which codes for both subunits of feline IL-12 and/or for feline IL-16 and wherein these sequences are under the control of a eukaryotic promoter which is active in the cat.

12. (Amended) Vaccine in accordance with Claim 8 containing an accessory polynucleotide sequence which contains at least one base sequence of the type $N^1N^2CGN^3N^4$, where N^1N^2 is an element of the group GT, GG, GA, AT or AA and N^3N^4 is an element of the group CT or TT.

13. (Amended) Vaccine in accordance with Claim 1 in which the immunising polynucleotide sequences and/or the accessory polynucleotide sequences are present as expression constructs which consist of linear and covalently capped molecules of desoxyribonucleic acid which contain a linear double-stranded region and in which the single strands which combine to form double strands are connected by short single-stranded loops of desoxyribonucleic acid and in which the single strands which combine to form double strands only consist of the coding sequence, a terminator sequence and a promoter which is active in the animal which is immunised.

A1 cont'd

14. (Amended) Vaccine in accordance with Claim 8 in which the accessory polynucleotide sequence contains a coding sequence in accordance with SEQ ID NO 8 (IL-12 p40), a coding sequence in accordance with SEQ ID NO 9 (IL-12 p35), coding sequences SEQ ID NO 10 (IL-16), SEQ ID NO 5 (CpG) or SEQ ID NO 6 (CpG) or a sequence which is complementary to one of these sequences.

15. (Amended) Vaccine for the vaccination or therapy of lentivirus infections in animals characterised by the presence of an immunising polynucleotide sequence and, in some cases, an accessory polynucleotide sequence in accordance with Claim 8, applied to a suitable massive and inert carrier material, in such a way that it can be accelerated into the skin of the animal, penetrate into the cells of the animal and be expressed there.

17. (Amended) Vaccine in accordance with Claim 15 which is characterised by the carrier material being gold.

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18. (Amended) Vaccine for the protective vaccination or therapy of an infection with lentivirus in *Felidae* which is characterised by the fact that it contains an immunising protein or the envelope protein of the corresponding lentivirus, together with IL-12 and/or IL-16 in the form of protein.